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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/709,807 | 11/10/2000 | Robert A. Reynolds | CROSS1340-1 | 5420 |

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EXAMINER

ENG, DAVID Y

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2155

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DATE MAILED: 07/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/709,807

Applicant(s)

REYNOLDS ET AL.

Examiner

DAVID Y. ENG

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2001.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-94 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-94 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 10 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Applicants are requested to provide the information of related patent applications on page 12 of the specification.

With respect to the first paragraph of page 10, it appears that there is only one drawing.

There are two claim 36s in the application. The second claim 36 has been renumbered as claim 95.

The International Search Report cited on the 1449 filed on 6/25/01 has not been considered because it is not prior art.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-95 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Although some claim languages are found in the Background of The Invention and Summary of The Invention, the claimed steps have no support in the Description of The invention. The description merely consists of desired functional statements. The claimed combination steps are not found anywhere in the Description of The Invention. The specification fails to explain how each of the claimed steps is carried out by

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hardware and/or software. The specification fails to explain how the combination of the claimed steps is able to achieve the desired function as called for in the claims.

Applicants are requested to identify the support of claims 1-22 in the specification. Applicants are cautioned not to introduce any new matter in the specification.

Claims 1-95 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not seen how the steps recited in the independent claims are able to encapsulate SCSI protocol for data transmission between two or more nodes across a packet-based network as call for in the preambles. There are no functional relationships recited between the steps. Following the steps recited in the claims does not result in encapsulating any protocol for data transmission between two or more nodes across a packet-based network.

Scope of claim 23 is not clear. The preamble calls for a system (apparatus claim), however, the claim combination recites instructions (method). See claim 69 for proper format.

Dependency of claim 37 is not clear because there are two claim 36.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-13, 17-19, 21, 23-35, 38-40, 42, 44-58, 62-64, 66, 68-84, 88-90, 92 and 94 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson (USP 6,738,821) in view of Walker (USP 6,061,723).

With respect to claims 1 and 21, see at least lines 23, et seq. of column 5 in Wilson. Wilson teaches a method for encapsulating SCSI protocol for data transmission between two or more nodes across a packet-based network, comprising, at each node:

- (c) encapsulating (see "encapsulation" in line 23 of column 5) an I/O phase between one or more local hosts and one or more remotes devices (see Figure 1); and
- (d) repeating step c for subsequent I/O phases.

Wilson did not explicitly teach steps a and b. However, Walker teaches

- (a) identifying (see "discovering the topology—polling—" in lines 52-63 of column 5 in Walker) all other available nodes, and remote devices attached to each of said nodes, on said network;

- (b) representing (inherent, addresses of devices on network) one or more of said remote devices such that they are made available (turned on) to one or more local hosts.

From the teaching of Walker, it would have been obvious to a person of ordinary skill in the art to poll the devices on a network so that the system knows what devices are actively connected to the network for communication before protocols are encapsulated.

As to claims 2, 4, it is well known that network packets contain many fields including address source, destination, commands and messages etc.

As to claims 3, 8, 9, see SCSI protocol in line 24 of column 5 in Wilson. See Fibre-Channel in Fig. 1G of Wilson.

As to claims 5, 6, 7, see SAN in line 44 of column 4 of Wilson.

As to claims 10-13, see Ethernet in Figure 1c of Wilson. WAN, ATM and SONET, etc. are well known in the art.

As to claims 17-19, Walker teaches, as set forth above, polling which is for identifying all nodes and devices on a network.

As set forth by Applicants on page 9 of their communication filed on 10/19/2001, claims 23-35, 38-40, 42, 44-58, 62-64, 66, 68-84, 88-90, 92 and 94 do not recite above the invention defined in claims 1-13, 17-19 and 21. Claims 23-35, 38-40, 42, 44-58, 62-64, 66, 68-84, 88-90, 92 and 94 are therefore rejected for the same reasons set forth above.

Claims 14, 36, 59 and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson (USP 6,738,821) and Walker (USP 6,061,723) further in view of Dev (USP 6,216,168).

Wilson and Walker teach claim combination set forth above. Wilson and Walker did not teach intermediate address mapping. See at least claims 1 and 2 in Dev. Dev teaches a network having a hierarchical directory including a plurality of nodes in a tree structural. Each node has an address mapping elements for mapping local address to an intermediate address and which is in turn mapped to a target address. From the teaching of Dev, it would have been obvious to a person of ordinary skill in the art to

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translate a local address to an intermediate address so that the intermediate address can be translated to a target address via if the network has a hierarchical directory.

Claims 15, 16, 22, 95, 37, 43, 60, 61, 67, 86, 87 and 93 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson (USP 6,738,821) and Walker (USP 6,061,723) further in view of Martin (USP 6,272,551).

As to claims 15, 22, 43, 95, 60, 67, 86 and 93 Wilson and Walker teach claim combination set forth above. Neither Wilson nor Walker teach convert or reconvert protocol. See lines 26-40 of column 2 in Martin. Martin teaches translating packets of one protocol to a network protocol for transmission over the network. The translated packet is retranslated back to the original protocol at the destination (remote node).

As to claims 16, 37, 61 and 87, see Ethernet in Figure 1c of Wilson. WAN, ATM and SONET, etc. are well known in the art.

Claims 20, 41, 65 and 91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson (USP 6,738,821) and Walker (USP 6,061,723) further in view of Shah (USP 5,390,326).

Wilson and Walker teach claim combination set forth above. Neither Wilson nor Walker teach heartbeat signal. See at least the abstract and lines 39-48 of column 5 in Shah. Shah teaches a network having heat beat signal for determining whether or not a device is still alive. From the teaching of Shah, it would have been obvious to a person of ordinary skill in the art to incorporate a heartbeat signal in Wilson such that the network is able to determine whether or not devices are alive (turn on or connected).

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Any inquiry concerning this communication should be directed to DAVID Y. ENG
at telephone number 703-305-9691.

A handwritten signature in black ink, appearing to read 'David Y. Eng', with a stylized, flowing script.

DAVID Y. ENG
PRIMARY EXAMINER